

establishing a program code for executing a data transfer function, the function being divided into phases by inactivity intervals, and the program code including code segments associated with each phase; and

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downloading each code segment to a first memory of the processor prior to commencement of the respective phase for execution thereof, each code segment being downloaded only during an associated inactivity interval.

3. (Amended) A method as claimed in claim 1, wherein the data transfer function is a modem modulation function.

CONT  
4. (Amended) A method as claimed in claim 1, wherein the program code is held in a second memory, external of the signal processor.

5. (Amended) A method as claimed in claim 1, wherein the signal processor is in the form of a Datapump.

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6. (Amended) A modem architecture comprising:  
a signal processor with an internal first memory;  
a second memory external of the signal processor, wherein the second memory is arranged to hold a program code divided into code segments, for executing phases of a modulation function with inactivity intervals therebetween and the first memory is configured to sequentially receive the segments downloaded from the second memory to a current segment portion of the first memory for executing same;

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wherein the signal processor is programmed to establish a program code for executing a data transfer function, the function being divided into phases by inactivity intervals, and the program code including code segments associated with each phase; and download each code segment to the first memory of the signal processor prior to commencement of the respective phase for execution thereof, each code segment being downloaded only during an associated inactivity interval.

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Please add new claims 8-13 to read as follows:

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8. (Amended) A method of data transfer for use with a signal processor, comprising:

establishing a program code for executing a data transfer function, the function being divided into phases by inactivity intervals, and the program code including code segments associated with each phase; and

A<sup>3</sup> downloading each code segment to a first memory of the processor prior to commencement of the respective phase for execution thereof, wherein each successively downloaded segment overwrites a previously downloaded segment.

9. The method of claim 8, wherein the data transfer function is a modem modulation function.

10. The method of claim 8, wherein the program code is downloaded from a second memory, external of the signal processor.

11. The method of claim 8, wherein the signal processor is a Datapump.

12. The method of claim 8, further comprising downloading from the second memory to the first memory an event arbiter segment prior to downloading any segments of the program code, the event arbiter segment providing programming that causes the signal processor to detect when each inactivity interval begins.

13. The method of claim 12, further comprising downloading from the second memory to the first memory a downloader segment prior to downloading any segments of the program code, the downloader segment providing programming that causes the signal processor to download one of the code segments in response to detecting the beginning of one of the inactivity intervals.

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